

Chapter 5

Glossary

Access Management Plan: The development of travel management policies that consider the development, maintenance, and protection of all forest resources.

Affected Environment: The biological, social, economic, and physical aspects of the environment that will or may be changed by proposed actions.

Air Quality: The composition of air with respect to quantities of pollutants therein, used most frequently in connection with "standards" of maximum acceptable pollutant concentrations.

Allotment (grazing): A designated area of land available for livestock grazing upon which a specified number and kind of livestock may be grazed under a range allotment management plan. It is the basic land unit used to facilitate management of the range resource on National Forest System lands administered by the Forest Service.

Alternative: In an EIS, one of a number of possible options for responding to the purpose and need for action.

Ambient air: Any unconfined portion of the atmosphere: open air and surrounding air. Often used interchangeably with "outdoor air."

Analysis Area: A delineated area of land subject to analysis of (1) responses to proposed management practices in the production, enhancement, or maintenance of forest and rangeland outputs and environmental quality objectives; and (2) economic and social impacts.

Animal Unit Month (AUM): The amount of feed or forage required by one animal unit grazing on a pasture for one month.

Annual (plant): A plant whose life cycle is completed in one year or season.

Appropriated Funds: Money made available by Congress for the various activities of the National Forest System and other Federal agencies.

Arterial Road: A road that provides service to large land areas and usually connects with public highways or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum mobility and travel efficiency rather than specific resource management service. It is usually developed and operated for long-term land and resource management purposes and constant service.

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Artifact: A sample object (such as a tool or ornament) showing early human workmanship or modifications.

Assessment: The collection, integration, examination, and evaluation of information and values.

Bankfull width: The width of a stream channel measured between the tops of the most prominent banks on either side of the stream. Also refers to the width of the stream at the normal flood flow.

Basal Area: In forests, the cross-sectional area of a tree trunk measured at breast height (4.5 feet), usually expressed in square feet per acre.

Bedload: Sediment moving on or near a streambed.

Best Management Practices (BMP): Practices designed to prevent or reduce water pollution.

Big Game: Those species of large mammals normally managed as a sport hunting resource.

Big Game Winter Range: The area available to and used by big game through the winter season.

Biological Diversity: (1) The distribution and abundance of plant and animal communities. (2) The variety of life forms and processes, including a complexity of species, communities, gene pools, and ecological functions.

Biophysical Environment: The biophysical environment is composed of its geologic, geoclimatic, climatic, potential vegetation, soil, and hydrologic systems. They help describe terrestrial and aquatic ecosystems that behave in a similar manner, and have similar hazards and management limitations. Areas with common characteristics respond to disturbance processes and management activities in a similar manner.

Biophysical characteristics such as climate, potential vegetation, and geology do not change readily over time. Therefore, they provide a useful basis for comparing elements that do not change over time (e.g. vegetation) in response to disturbance or management activities.

Board Foot: A unit of wood 12" x 12" x 1".

Buffers: Strips of land left untreated along streams or if treated, the objective of the treatment is to improve riparian condition.

Category 1: INFISH classification referring to permanently flowing, fish-bearing streams.

Category 2: INFISH classification referring to permanently flowing, nonfish-bearing stream.

Category 3: INFISH classification referring to ponds, lakes, reservoirs, and wetlands greater than one acre in size.

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Category 4: INFISH classification referring to seasonally flowing or intermittent streams, wetlands less than one acre in size, landslides, and landslide-prone areas.

Cavity: A hollow in a tree used by birds or mammals for roosting and reproduction.

Channel (stream): The deepest part of a stream or riverbed through which the main current of water flows.

Channelization: Human-caused alterations to a stream channel that cause the channel to be fixed in place, such as levees, dikes, trenching, and rip-rap.

Class I Area: Under the 1977 Clean Air Act amendments, all international parks, national parks larger than 6,000 acres, and national wilderness areas larger than 5,000 acres which existed on August 7, 1977. This class provides the most protection to pristine lands by severely limiting the amount of additional air pollution that can be added to these areas.

Clean Water Act of 1987: Amends the Federal Water Pollution Control Act of July 9, 1956. The purpose of the 1956 act is to enhance the quality and value of the water resource, and to establish a national policy for the prevention, control, and abatement of water pollution. Among the important provisions are authority for the State and Federal Governments to establish water quality standards; provision for water pollution grants for research and development, control programs, construction of treatment works, and comprehensive programs for water pollution control; enforcement measures against pollution from Federal facilities; and provision for the control of pollution by oil, hazardous substances, or sewage from vessels. The basic act (Public Law 84-660) is amended by the Federal Water Pollution Control Act/Amendments of 1961 (Public Law 87-88); Water Quality Act of 1965 (Public Law 89-234); Clean Water Restoration Act of 1966 (Public Law 89-753Z); Title I, Water Quality Improvement Act of 1970 (Public Law 91-224); Title I, National Environmental Policy Act of 1969 (Public Law 91-224); Federal Water Pollution Act of 1969 (Public Law 91-224); Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500); Clean Water Act of 1977 (Public Law 95-217); Clean Water Act of 1987.

Closed Road: A road on which motorized traffic has been excluded by regulation, barricade, blockage, or by obscuring the entrance. A closed road is still an operating facility on which motorized traffic has been removed (year-long or seasonal) and remains on the Forest Road Transportation System.

Collector Roads: These roads serve smaller land areas than a Forest arterial road, and are usually connected to a Forest arterial road or a public highway. Collects traffic from Forest local roads and/or terminal facilities. The location and standard are influenced by both long term, multi-resource service needs, as well as travel efficiency. May be operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility.

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Commercial Thin: A type of commercial harvesting that removes commercial sized (7" - 21" dbh) trees from a stand for the purpose of increasing the spacing between residual trees. Trees of undesirable form or condition would be removed by cutting from below.

Compaction: Making soil hard and dense, decreasing its ability to support vegetation because the soil can hold less water and air and because roots have trouble penetrating the soil.

Composition (species): The mix of different species that make up a plant or animal community, and their relative abundance.

Connectivity: The arrangement of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of appropriate vegetation. The opposite of fragmentation.

Cover: (1) Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself. (2) The area of ground covered by plants of one or more species.

Four levels of cover are defined for elk as follows:

- **Satisfactory Cover:** For elk, a stand of coniferous trees 40 or more feet tall with an average canopy closure equal to or more than 50 percent for ponderosa pine, and 60 percent for mixed conifer. Satisfactory cover typically exists as a multi-storied stand and would meet elk hiding cover criteria.
- **Marginal Cover:** For elk, a stand of coniferous trees 10 or more feet tall, with an average canopy closure equal to or more than 40 percent.
- **Hiding Cover:** Vegetation capable of hiding 90 percent of a standing adult deer or elk from human view at 200 feet.
- **Thermal Cover:** Vegetative cover used by animals to lessen effects of weather.

Cubic Foot: The amount of timber equivalent to a piece of wood one foot by one foot by one foot.

Cultural Resource: The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) and conceptual content or context (as a setting for legendary, historic, or prehistoric events, as a sacred area of native peoples, etc.) of an area of prehistoric or historic occupation.

Cumulative Effects: Impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Diameter At Breast Height (dbh): The diameter of a tree measured 4-1/2 feet above the ground.

Decommissioned Roads: Roads over which travel has been and will continue to be denied, the entrance is obscured, and the wheel tracks or pathway are no longer continuous and suitable for travel. It includes roads obliterated by natural processes such as revegetation or other natural occurrences, and for which the drainage is not in need of further attention. A decommissioned road has been returned to the resource management purposes established for that area. Decommission by natural processes may have to be supplemented by artificial methods to get "vegetative cover within ten years" after the last activity, as required by the National Forest Management Act. Decommissioned roads will be removed from the Forest Road Transportation System.

DecAID: An internet-based computer program being developed as an advisory tool to help federal land managers evaluate effects of management activities on wildlife species that use dead wood habitats. The tool synthesizes published literature, research data, wildlife databases, and expert judgment and experience (Mellen et al. 2003). DecAID presents information on wildlife use based on snag density and snag diameter. This information is presented at three statistical levels: low (30% tolerance level), moderate (50% tolerance level), and high (80% tolerance level). A tolerance level can also be defined as an "assurance of use" or the likelihood that individuals in a population of a selected species will use an area given a specified snag size and density.

Density (stand): The number of trees growing in a given area, usually expressed in terms of trees per acre.

Desired Condition: (1) A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved. (2) A description of the landscape as it could reasonably be expected to appear at the end of the planning period, if the plan goals, objectives, standards, and guidelines for that landscape are fully achieved.

Direct Effects: Impacts on the environment that are caused by the action and occur at the same time and place.

Dispersed recreation: Recreation that does not occur in a developed recreation site; for example, hunting or backpacking.

Diversity: The distribution and abundance of different plant and animal communities and species within an area.

Draft Environmental Impact Statement (DEIS): The statement of environmental effects required for major Federal actions under section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review.

Downed Woody Material: The accumulation of dead woody material on the forest floor that provides habitat for terrestrial wildlife.

Duff: The partially decomposed organic material of the forest floor that lies beneath freshly fallen leaves, needles, twigs, stems and bark.

Ecosystem: A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

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Ecosystem Health (Forest Health): The state of an ecosystem in which structure and functions are sufficiently resilient to allow the maintenance of biological diversity over time and through a range of disturbances.

Effects: Environmental changes resulting from a proposed action. See direct effects, indirect effects, and cumulative effects.

Elk Wallow: A depression, pool of water, or wet area produced or utilized by elk during the breeding season.

Embeddedness: The degree to which stream substrate (boulders, cobble, gravel) is surrounded or covered by fine sediment.

Endangered Species: A plant or animal species listed under the Endangered Species Act that is in danger of extinction throughout all or a significant portion of its range.

Endemic Infestations: Native or confined to a certain area, region, or county.

Environmental Impact Statement (EIS): A document prepared by a Federal agency on the environmental effects of its proposals for major actions used as a tool for decision-making. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Epidemic: Occurrence of insects or disease contained in population and location above a normal, balanced level.

Erosion: The group of processes whereby earthy or rocky material is worn away by natural sources such as wind, water, or ice and removed from any part of the earth's surface.

Erosion Pavement: A layer or residue of more resistant material left exposed by the erosion of materials overlying it.

Extirpation: Loss of populations from all or part of a species' range within a specified area.

Final Environmental Impact Statement (FEIS): The final statement of environmental effects required for major Federal actions under section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review.

Fines (sediment): Sediment particles smaller than 0.2 inch. Excessive fines can trap newly hatched fish and decrease the amount of water percolating through spawning gravels. High fine sediment loads slow plant growth and reduce available food, oxygen, and light.

Fire-Dependent Systems: Forests, grasslands, and other ecosystems historically composed of species of plants that evolved with and are maintained by fire regimes.

Fire Regime: The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire.

Fire Return Interval: The average time between fires in a given area.

Forage: Forage refers specifically to all browse and non-woody plants that are available to livestock or wildlife.

Forb: Any herbaceous plant other than true grasses, sedges, or rushes.

Forest Land: Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use. Lands developed for non-forest use include areas for crops, improved pasture, residential or administrative areas, improved roads of any width, and adjoining road clearing and powerline clearing of any width.

Forest Land Use Plan (Forest Plan): A plan that gathers and coordinates the direction to be followed in the overall management of a National Forest. The implementation plan of a selected alternative for management of a National Forest.

Forest-Wide Standards: An indication or outline of policy or conduct dealing with the basic management of the Forest. Forest-wide management standards apply to all areas of the Forest regardless of the other management prescriptions applied.

Fragmentation (habitat): The break-up of a large land area (such as a forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity.

Fuel: Plants, both living and dead, and woody vegetative materials that are capable of burning.

Fuel Hazard: An accumulation of vegetative fuel that has a high risk of ignition or difficulty of suppression.

Fuel Ladder: Vegetative structures or conditions such as low-growing tree branches, shrubs, or smaller trees that allow fire to move vertically from a surface fire to a crown fire.

Fuel load: The dry weight of combustible materials per unit area; usually expressed as tons per acre.

Fuel Treatment: The rearrangement or disposal of natural or activity fuels to reduce the fire hazard.

Geographic Information System (GIS): An information processing technology to input, store, manipulate, analyze, and display data; a system of computer maps with corresponding site-specific information that can be combined electronically to provide reports and maps.

Habitat: The natural abode of a plant or animal including all biological and climatic factors affecting life.

Habitat Capability: The estimated ability of an area, given existing or predicted habitat conditions, to support a wildlife, fish, or plant population. It is measured in terms of potential population numbers.

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Hard Snag: A snag composed primarily of sound wood, particularly sound sapwood that is generally merchantable.

Harvest: Felling and removal of trees from the forest.

Herbicide: A chemical compound used to kill or control growth of undesirable plant species.

Hiding Cover: Vegetation capable of hiding 90 percent of a standing adult deer or elk from human view at 200 feet.

Historical Period: In this EIS, refers to information recorded during the early decades of Euroamerican settlement of the area, approximately the mid 1800s, prior to major changes caused by this settlement and by subsequent patterns of land and resource use.

Historic Range of Variability (HRV): The natural fluctuation of ecological and physical processes and functions that would have occurred during a specific period of time. In this EIS, refers to the range of conditions that are likely to have occurred prior to settlement of the area by Euroamericans (approximately the mid-1800s), which would have varied within certain limits over time. HRV is discussed in this document only as a reference point, to establish a baseline set of conditions for which sufficient scientific or historical information is available to enable comparison to current conditions.

Hydrophobic Soil: A condition in which soil becomes water-repellent, the capacity of soil to hold water is reduced, and chances for erosion are increased.

Impact, Economic, Direct: Impact caused directly by forest product harvest or processing or forest uses.

Impact, Economic, Indirect: Impacts that arise from supporting industries selling goods or services to directly affected industries.

Impact, Economic, Induced: Impacts resulting from employees or owners of directly or indirectly affected industries spending their income within the economy.

Implement: To carry out.

Indirect Effects: Impacts on the environment that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.

Industry: A class of firms engaged in raw material production, manufacture, or trade.

Infiltration: The passage of water or absorption of water into the soil surface.

Infiltration Rates: Maximum rate at which soil under specified conditions can absorb rain or shallow impounded water, expressed in quantity of water absorbed by the soil per unit of time.

INFISH: Interim Inland Native Fish Strategy for the Intermountain, Northern, and Pacific Northwest Regions (Forest Service).

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Interdisciplinary Team (IDT): A group of individuals with different training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad to adequately solve the problem. Through interaction, participants bring different points of view to bear on the problem.

Intermediate Thin: A type of commercial harvesting that removes commercial sized (7" – 21") trees from a stand for the purpose increasing the spacing between residual trees and moving the composition of the residual trees towards historical species composition. Trees of undesirable species, form, or condition are removed by cutting from below.

Intermittent Stream: A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

Irretrievable: Applies primarily to the use of nonrenewable resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible: Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors such as soil productivity that are renewable only over long time periods. Irreversible also includes loss of future options.

Issue: A matter of controversy, dispute, or general concern over resource management activities or land uses. To be considered a "significant" environmental impact statement issue, it must be well defined, relevant to the proposed action, and within the ability of the agency to address through alternative management strategies.

Ladder Fuels: Natural fuels, such as standing dead trees with low, brown-needled limbs or leaning dead trees, that provide fire an opportunity to reach the crowns of standing live trees.

Large Woody Debris (LWD): Pieces of wood that are of a large enough size to affect stream channel morphology.

Late and Old Structure (LOS): This is a term used in the Regional Forester's Forest Plan Amendment #2 which refers to timber stands where large trees are common.

Lek: A site where birds (primarily grouse) traditionally gather for sexual display and courtship.

Litter: The uppermost layer of organic debris on the soil surface, essentially the freshly fallen or slightly decomposed vegetal material.

Local Roads: Roads constructed and maintained for, and frequented by, the activities of a given resource element. These roads connect terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard usually are determined by the requirement of a specific resource activity rather than by travel efficiency.

Lop and Scatter: Cutting branches, tops, and small trees after felling, so that the resultant slash will lie close to the ground.

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Lowdry: The lowdry sub zone is a moisture limited environment composed of ponderosa pine climax in association with grasses and dry site shrubs.

Maintenance Burning: An area is within or near the historic range of variability. A prescribed fire would reduce or maintain surface fuel loading and ladder fuels to the historic range of variability.

Management Area: An area with similar management objectives and a common management prescription.

Management Indicator Species: A species that is presumed to be sensitive to habitat changes; population changes of indicator species are believed to best indicate the effects of land management activities.

Management Prescription: Management practices and intensities selected and scheduled for application in a specific area to attain multiple use and other goals and objectives.

Middleground: The visible terrain between the foreground and the background in a viewed landscape. The area located from ¼ to 3-5 miles from the viewer.

Mitigation: Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action.

Mixed Conifer: Stand containing a mixture of tree species including, but not limited to, ponderosa pine, western larch, white fir, Douglas-fir, and lodgepole pine.

Monitoring: A process of collecting information to evaluate whether or not objectives of a project and its mitigation plan are being realized. Monitoring allows detection of undesirable and desirable changes so that management actions can be modified or designed to achieve desired goals and objectives while avoiding adverse effects to ecosystems.

Mosaic: A pattern of vegetation in which two or more kinds of communities are interspersed in patches, such as clumps of shrubs with grassland between.

Multiple Burning: More than one prescribed burns to accomplish or move an area to the next level of stage burns. Each stage may need multiple burns to accomplish these objectives.

Multiple Use: The management of all renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily with the combination of uses that will give the greatest dollar return or the greatest unit output.

Mycorrhizae: The symbiotic relationship between certain fungi and the roots of certain plants, especially trees, important for plants to take nutrients from soil.

National Environmental Policy Act (NEPA): An act of congress passed in 1969 declaring a national policy to encourage productive and enjoyable harmony between people and the environment, to promote efforts that will prevent or eliminate damage to the environment and the biosphere and stimulate the health and welfare of people, and to enrich the understanding of the ecological systems and natural resources important to the nation, among other purposes.

National Forest Management Act (NFMA): A law passed in 1976 requiring the preparation of Forest Service regional guides and forest plans and the preparation of regulations to guide that development.

National Forest System (NFS) Land: Federal lands that have been designated by Executive order or statute as National Forest, National Grasslands, or Purchase Units, and other lands under the administration of the Forest Service, including Experimental Areas and Bankhead-Jones Title III lands.

No Action Alternative: The most likely condition expected to exist in the future if the current management direction would continue unchanged.

Non-Sawtimber: Trees not suitable in size and quality for producing logs. Non-sawtimber can be processed into wood fiber.

Noxious Weed: A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the United States. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has other adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

Old Growth: For all National Forests in the Pacific Northwest Region, an old-growth stand is defined as any stand of trees 10 acres or greater generally containing the following characteristics:

- Stands contain mature and over-mature trees in the overstory and are well into the mature growth stage (see Handbook of Terminology, Society of American Foresters).
- Stands will usually contain a multi-layered canopy and trees of several age classes.
- Standing dead trees and down material are present.
- Evidence of human activities may be present but may not significantly alter the other characteristics and would be a subordinate factor in a description of such a stand.

Old Forest: (a) *Old single story forest* refers to mature forest characterized by a single canopy layer consisting of large or old trees. Understory trees are often absent, or present in randomly spaced

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patches. It generally consists of widely spaced, shade-intolerant species, such as ponderosa pine and western larch, adapted to a nonlethal, high frequency fire regime. (b) *Old multi-story forest* refers to mature forest characterized by two or more canopy layers with generally large or old trees in the upper canopy. Understory trees are also usually present, as a result of a lack of frequent disturbance to the understory. It can include both shade-tolerant and shade-intolerant species, and is generally adapted to a mixed fire regime of both lethal and nonlethal fires. Other characteristics of old forests include: variability in tree size; increasing numbers of snags and coarse woody debris; increasing appearance of decadence, such as broken tops, sparse crowns, and decay in roots and stems; canopy gaps and understory patchiness; and old trees relative to the site and species.

Open Road: A road, or segment thereof, that is open to use.

Open Road Density: The miles of open road in a specific area of land.

Over-mature: The stage at which a tree declines in vigor and soundness (e.g., past the period of rapid height growth).

Overstory: The uppermost canopy of the forest when there is more than one level of vegetation.

Park-like Stand: Stand having scattered large overstory trees, few or no understory trees, and open growing conditions usually maintained by frequent ground fires.

Partial Retention: See Visual Quality Objectives.

Particulates: solid particles or liquid droplets suspended or carried in the air.

Perennial Stream: Streams that flow continuously throughout most of the year.

Potential Vegetation: Vegetation that would likely develop if all successional sequences were completed without human interference under present site conditions.

Potential Vegetation Group (PVG): A group of potential vegetation types, grouped on the basis of similar general moisture or temperature environment and similar types of life forms.

Preferred Alternative: The alternative identified in a Draft Environmental Impact Statement, which has been initially selected by the agency as the most acceptable resolution to the problems identified in the purpose and need.

Prescribed Fire: Intentional use of fire under specified conditions to achieve specific management objectives.

Prescription: See Management Prescription.

Primary Transportation System: Includes Arterial and Collector roads.

Proper Functioning Condition (PFC): Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter

sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses and stabilize stream banks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. *The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation.*

Proposed Action: In terms of the National Environmental Policy Act, the project, activity, or action that a Federal agency intends to undertake or implement and which is the subject of an environmental analysis.

Proposed Species: Any species that is proposed by the Fish and Wildlife Service or the National Marine Fisheries Service to be listed as threatened or endangered under the Endangered Species Act.

Ramet: An independent member of a clone.

Record of Decision (ROD): A document separate from but associated with an Environmental Impact Statement that states the decision, identifies all alternatives, specifying which were environmentally preferable, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not (40 CFR 1505.2).

Recreation Opportunity Spectrum (ROS): A system for planning and managing recreation resources. Land delineations that identify a variety of recreation experience opportunities categorized into classes on a continuum from primitive to urban. Each class is defined in terms of the degree to which it satisfies certain recreation experience needs, based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use.

Replacement Old Growth (ROG) Stands: Stands that will replace old growth stands when old growth stands no longer meet old growth requirements.

Restoration: Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume acting or continue to act following disturbance as if the disturbances were absent. Restoration management activities can be either active (such as control of noxious weeds, thinning of over-dense stands of trees, or redistributing roads) or more passive (more restrictive, hands-off management direction that is primarily conservation oriented).

Retention (VQO): See Visual Quality Objectives.

Riparian Area: Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Riparian Habitat Conservation Areas (RHCAs): Portions of watersheds where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent

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headwater streams, and other areas where proper ecological functioning is crucial to maintenance of the stream's water, sediment, woody debris, and nutrient delivery systems.

Riparian Management Objectives (RMOs): Quantifiable measures of stream and stream-side conditions that define good fish habitat, and serve as indicators against which attainment, or progress toward attainment, of the goals will be measured.

Ripping: The mechanical penetration and shearing of soils to depths of 8 to 18 inches for the purpose of breaking up compacted soil to facilitate penetration of plant roots, water, organic matter, and nutrients.

Road: A classified road is at least 50 inches wide and constructed and maintained for vehicle use. An unclassified road is considered a road that was not constructed, maintained, or intended for highway use.

Road Density: The measure of the degree to which the length of road miles occupies a given land area (e.g., 1 mi./sq. mi. is 1 mile of road within a given square mile).

Roadless Area: A National Forest area that (1) is larger than 5,000 acres or, if smaller than 5,000 acres, is contiguous to a designated wilderness or primitive area; (2) contains no roads; and (3) has been inventoried by the Forest Service for possible inclusion in the Wilderness Preservation System.

Road Improvement: See Road Reconstruction.

Road Maintenance: The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective (FSM 7712.3).

Road Realignment: See Road Reconstruction.

Road Reconstruction: Activity that results in an increase of an existing classified road as defined below:

- a. Road improvement: Activity that results in an increase of an existing road's traffic service level, expansion of its capacity, or a change in its original design function.
- b. Road realignment: Activity that results in a new location of an existing road or portions of an existing road and treatment of the old roadway (36 CFR 212.1).

Runoff: The total stream discharge of water, including both surface and subsurface flow, usually expressed in acre-feet of water yield.

Sawtimber: Trees suitable in size and quality for producing logs that can be processed into lumber.

Scenic Integrity Objectives (SIO): The degree of direct human-caused deviations in the landscape, such as road construction, timber harvesting, or activity debris. Indirect deviations, such as landscape created by human suppression of the natural role of fire, are not included.

Scoping Process: An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. Identifying the

significant environmental issues deserving of study and de-emphasizing insignificant issues, narrowing the scope of the environmental impact statement accordingly (CEQ regulations, 40 CFR 1501.7).

Sediment: Solid material, both mineral and organic, that is in suspension, being transported, or has been moved from its site of origin by air, water, gravity, or ice.

Sedimentation: The action or process of forming or depositing sediment.

Sensitive Species: Species identified by a Forest Service regional forester or BLM state director for which population viability is a concern either (a) because of significant current or predicted downward trends in population numbers or density, or (b) because of significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Seral: Refers to the stages that plant communities go through during succession. Developmental stages have characteristic structure and plant species composition. Early seral refers to plants that are present soon after a disturbance or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest); mid seral in a forest would refer to pole or medium sawtimber growth stages; late or old seral refers to plants present during a later stage of plant community succession (such as mature and old forest stages).

Seral Stage: The developmental phase of a forest stand or rangeland with characteristic structure and plant species composition.

Shade-Intolerant: Species of plants that do not grow well in or die from the effects of too much shade. Generally these are fire-tolerant species.

Shade-Tolerant: Species of plants that can develop and grow in the shade of other plants. Generally these are fire-intolerant species.

Slash: The residue left on the ground after felling and other silvicultural operations and/or accumulating there as a result of storm, fire, girdling, or poisoning of trees.

Snag: A standing dead tree usually greater than 6 feet in height and 4 inches in diameter at breast height. Snags are important as habitat for a variety of wildlife species and their prey.

Social Stability: The maintenance of existing interactions between local groups affected by the continuity of social and economic values within a community.

Soil Compaction: An increase in soil bulk density of 20 percent or more from the undisturbed level of volcanic ash soils. For other soils, it is an increase in soil bulk density of 15 percent or more from the undisturbed level.

Soil Erosion: See Erosion.

Soil Productivity: The capacity of a soil to produce plant growth, due to the soil's chemical, physical, and biological properties (such as depth, temperature, water-holding capacity, and mineral, nutrient, and organic matter content).

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Stage Burning: Using prescribed fire to move a designated area from one stage to the next stage. Each burn would move the ecosystem closer to the historic range of variability. The three stages of burning are:

- Jackpot or light burning in deep litter layer, heavy surface fuel loading, and ladder fuels.
- Underburning areas with a mixture of a thin litter layer with open grass areas, some pockets of heavy fuel loading and deep litter layer, opening stand densities, and decreasing more of the ladder fuels.
- Underburning with high intensity fire, 2 to 4 foot flame height, in open grasses stands.

Stand: A community of trees or other vegetative growth occupying a specific area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity.

Stand Composition: The vegetative species that make up the stand.

Stand Density: Refers to the number of trees growing in a given area, usually expressed in trees per acre.

Stand Replacement Fire: In forests, fires in which less than 20 percent of the basal area or less than 10 percent of the canopy cover remains; in rangelands, fires in which most of the shrub overstory or encroaching trees are killed.

Stand Structure: The mix and distribution of tree sizes, layers, and ages in a forest. Some stands are all one size (single-story), some are two-story, and some are a mix of trees of different ages and sizes (multi-story).

Stocking: A measure of timber stand density as it reaches to the optimum or desired density to achieve a given management objective.

Subwatershed: A drainage area of approximately 20,000 acres, equivalent to a 6th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained within watershed (5th-field HUC), which in turn are contained within a subbasin (4th-field HUC).

Succession: A predictable process of changes in structure and composition of plant and animal communities over time. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages in succession are often referred to as seral stages.

Successional Stage: A phase in the gradual supplanting of one community of plants by another.

Surface Erosion: The detachment and transport of individual soil particles by wind, water, or gravity.

Temporary Road: Those roads needed only for the purchaser's or permittee's use. The Forest Service and the purchaser or permittee must agree to location and clearing widths. Temporary roads are used for a single, short-term use (e.g., to haul timber from landings to Forest development roads, access to build water developments, etc.).

Thinning: An operation to remove trees from a forest for the purpose of reducing fuel, maintaining stand vigor, regulating stand density/composition, or for other resource benefits. Precommercial thinning refers to the removal of trees usually less than 7 or 9 inches dbh. Commercial thinning refers to the removal of trees generally greater than 7 or 9 inches dbh.

Threatened Species: Species listed under the Endangered Species Act that are likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Tier: In an EIS, refers to incorporating by reference the analyses in an EIS of a broader scope. For example, a Forest Service project-level EIS could tier to the analysis in a Forest Plan EIS; a Forest Plan EIS could tier to a Regional Guide EIS.

Tolerance Level: An “assurance of use” or the likelihood that individuals in a population of a selected species will use an area given a specified snag size and density.

Understory: The trees and other woody species growing under a more-or-less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

Understory Burning: A low intensity fire that burns beneath the canopy of a timber stand. It can occur during the course of a wildfire as well as under prescribed fire conditions.

Updry: The updry sub zone is a moisture limited environment but not as severely as the lowdry sub zone. The updry sub zone is comprised of ponderosa pine climax in association with wetter shrubs, Douglas-fir climax sites, white fir climax sites, and very few lodgepole areas that are most often transitioning to white fir.

Viability: The likelihood of continued existence in an area for some specified period of time.

Visual Quality Objectives (VQOs): A desired level of management based on physical and sociological characteristics of an area. Refers to the degree of acceptable alteration of the characteristic landscape.

- Preservation – Allows only ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to specially classified areas, including wilderness.
- Retention – Provides for management activities that are not visually evident. Management activities are permitted, but the results of those activities on the natural landscape must not be evident to the average viewer.
- Partial Retention – Management activities may be evident to the viewer but must remain visually subordinate to the surrounding landscape.
- Modification – Management activities may visually dominate the natural surrounding landscape but must borrow from naturally established form, line, color, and texture.
- Maximum Modification – Land management activities can dominate the natural landscape to greater extent than in the modification objective, except as viewed from

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background when visual characteristic must be those of natural occurrences within the surrounding area.

Water Bar: A structure constructed across roads and skid trails to divert the surface runoff of water.

Watershed: (1) The region draining into a river, river system, or body of water. (2) In this EIS, a watershed also refers specifically to a drainage area of approximately 50,000 to 100,000 acres, which is equivalent to a 5th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained within a watershed (5th-field HUC), which in turn is contained within a subbasin (4th-field HUC).

Whole Tree Yarding: Felling and transporting the whole tree without the stump, but with its crown, for trimming and bucking at a landing.

Wildfire: A human or naturally caused fire that does not meet land management objectives.

Winter Range: The area, usually at lower elevations, occupied by migratory deer and elk during the winter months.

Yarding: The operation of hauling timber from the stump to a collection point.

Yarding With Tops Attached: Transporting the crown attached to the last log. The last log is trimmed and bucked at the landing. This is done to trees that are too large for whole tree yarding.